## Introduction of Interface



According to the standards of SJ/T11364-2006 in Measures for the Control of Pollution from Electronic Information Products issued by the Ministry of Information Industry of People's Republic of China, here is the description of identifications of the control of pollution, toxic/harmful substances, or elements about the product:

**Identifications of toxic/harmful substances or elements in the product:**

### Name and content of toxic/harmful substances or elements in the product

| Components | Toxic/harmful substances or elements | | | | | |
|---|---|---|---|---|---|---|
| | Pumbum (pb) | Hydragyrum (pb) | Cadmium (CD) | Hexavalent chromium (cr(vl)) | Poly brominated biphenyl (PBB) | Polybrominated Diphenyl Ethers (PBDE) |
| PCB board | X | 0 | 0 | 0 | 0 | 0 |
| Stuctural components | 0 | 0 | 0 | 0 | 0 | 0 |
| Chips | 0 | 0 | 0 | 0 | 0 | 0 |
| Connection devices | 0 | 0 | 0 | 0 | 0 | 0 |
| Passive components | 0 | 0 | 0 | 0 | 0 | 0 |
| Welding metal | 0 | 0 | 0 | 0 | 0 | 0 |
| Wirse | X | 0 | 0 | 0 | 0 | 0 |
| Soldering flux, labels of thermal paste and other materials | 0 | 0 | 0 | 0 | 0 | 0 |

0: means the content of the toxic/harmful substance in all homogeneous materials of the component is within the content limit of SJ/T11364-2006.
X: means at least the content of the toxic/harmful substance in one Homogeneous material of the component exceeds the content limit of SJ/T11364-2006.
Note: the content of pumbum corresponding to X exceeds the content limit of SJ/T11364-2006, but it is in compliance with the exempted items of EU ROHS.

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### Statement

The manual is only a technical document, without any content indicating orinsinuating the third party. We don't take responsibilities for user's misunderstanding caused by typographical errors. And if any issue of information loss business termination caused directly or indirectly by the manual or product information mentioned in It, our company and our staffs don't take any responsibility.As the products are always being improved or updated, our company reserves the right to revise the manual without notice.

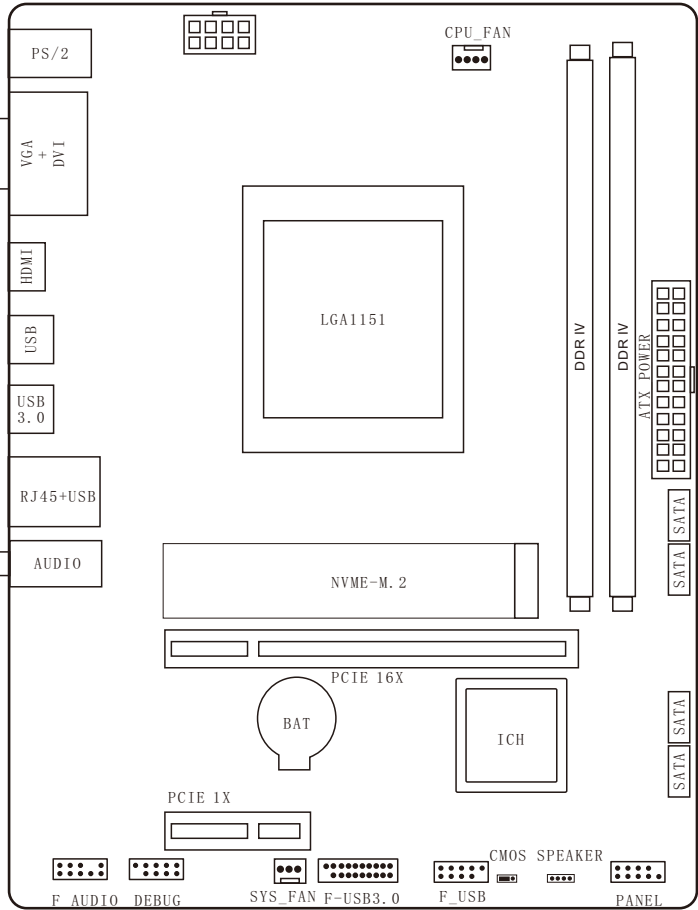All trademarks mentioned in the manual belong to their legally registered companies.

### Package Contents

- ☐ Motherboard x 1
- ☐ SATA cable x 1
- ☐ User's manual x 1
- ☐ I/O panel x 1
- ☐ CD driver x 1

### Specification

| CPU | – Supports 8/9rd Gen(Ivy Bridge). Intel® Core™ CPUs (LGA1151) |
|---|---|
| Chipset | – Intel H310 ® Express Chipset |
| Memory | – 2*288-pin DDR4 SDRAM slots<br>– Memory up to 32GB<br>– Supports dual channel DDR4 3200/2933/2800/2666/2400/2133MHz |
| I/O interface | – 1 x PS/2 keyboard port,1 x PS/2 mouse port<br>– 4 x USB,compatible with USB2.0/ 1.1<br>– 2 x USB,compatible with USB3.0<br>– 1 x VGA port<br>– 1 x HDMI port<br>– 1 x DVI port<br>– 1 x RJ45 port<br>– 1 x 3-in-1 Audio port(line In/Line Out/MIC IN) |
| Onboard interface | – 1 x 24-pin ATX power connector<br>– 1 x 8-pin ATX 12V power connector<br>– 1 x USB2.0 connector,can support 2*USB 2.0<br>– 1 x USB3.0 connector,can support 2*USB 3.0<br>– 1 x F_AUDIO connector<br>– 1 x F_PANEL connector<br>– 1 x SPEAKER connector<br>– 2 x FAN connector<br>– 4 x serial SATA/6GB/S connector port<br>– 1 x LPC_DEBUG connector |
| Integrated sound | – with 6-channel HD Audio Codec onboard<br>– provides front audio interface;<br>provides front stereo mic interface; |
| Integrated lan | – with 100/1000Mbps LAN onboard |
| Expansion slot | – 1 x PCI Express x16 slot<br>– 1 x PCI Express x1 slot<br>– 1 x NVME-M.2 connector |
| Dimension | – Micro-ATX architecture(17*21cm) |

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## Motherboard Layout



**Note**: the pictures are just for reference. Please make the object as the standard. Please refer to the part of "Introduction of onboard Interface" about the interface marked in above picture

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## Introduction of onboard Interface

**CMOS Memory Clearing Header**
The time to clear the CMOS memory occurs when (a) the CMOS data becomes corrupted, (b) you forgot the supervisor or user password preset in the BIOS menu, (c) you are unable to boot-up the system because the CPU ratio/clock was incorrectly set in the BIOS menu, or (d) whenever there is modification on the CPU or memory modules.
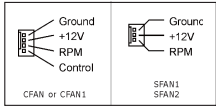This header uses a jumper cap to clear the CMOS memory and have it reconfigured to the default values stored in BIOS.
•pins 1 and 2 pened Default): Normal operation.
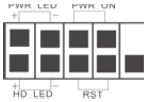•pins 2 and 3 shorted: Clear CMOSemory

**FAN Power Connectors**
These connectors each provide power to the cooling fans installed in your system.

CFAN: CPU Fan Power Connector
SFAN1: System Fan Power Connector



**Front Panel Switches & Indicators Headers**



**HD_LED** : Hard Driver LED connector
This connector connects to the case-mounted HD LED cable, and the LED will light when the hard drive(s) is/are being accessed.
**RST** : Reset Switch
This connector connects to the case-mounted reset switch which allows you to reboot without having to power-off the system and thus prolonging the life of the power supply or system.
**PWR_ON** : Power Switch
Depending on the setting in the BIOS setup, this switch serves two functions which will allow you to power-on/off the system or to enter the suspend mode.
**PWR_LED** : Power/Standby LED
When the system's power is on, this LED will light. When the system is in the S1 (POS - Power on Suspend) or S3 (STR - Suspend to RAM, optional) state, it will blink every second.
**SPEAKER** : Speaker Connector
This 4-pin connector connects to the case-mounted speaker.

**Additional USB Port Headers**
The headers conform to USB 2.0/1.1 specification. Each USB header can provide two USB ports via an optional USB bracket.

| Pin | Pin Assignment | Pin | Pin Assignment |
|---|---|---|---|
| 1 | VCC | 2 | VCC |
| 3 | Data 0- | 4 | Data 0- |
| 5 | Data 0+ | 6 | Data 0+ |
| 7 | Ground | 8 | Ground |
| 9 | No Pin | 10 | NC |



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**Front Panel Audio**



F_AUDIO

| Pin No. | Header | HD Audio Definition | AC97 Audio Definition |
|---|---|---|---|
| 1 | PORT1L | Microphone_Left | Microphone |
| 2 | AGND | Ground | Ground |
| 3 | PORT1R | Microphone_Right | MIC Power |
| 4 | PRESENCE# | -ACZ_DET | N/A |
| 5 | PORT2R | Line2_Right | Line out (R) |
| 6 | SENSE1_RETURN | AuD_R_Return | N/A |
| 7 | SENSE_SEND | FAUDIO_JD | N/A |
| 8 | No Pin | N/A | N/A |
| 9 | PORT2L | Line2_Left | Line Out(L) |
| 10 | SENSE2_RETURN | AuD_L_Return | N/A |

**ATXPWR/PWR12V(4-pin)12v power connector/24-pin ATX main power connectot**

The power supply can provide sufficient and stable power for all components on the motherboard through ATXPWR/PWR12V connector. Make sure that the power is off and all components are assembled well before connecting ATXPWR/PWR12V power plug. The power plugs are designed in one orientation. Find the proper orienration and connect them.
PWR12V connector mainly provides power for the CPU. If not connected, the PC can not work

**Note** : using 20-pin ATX power plug, please make it close to one side of pin 1 & pin 13 and connect it.